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COLIN K. LINEBERRY, DIRECTOR
HEARINGS SECTION

# RAILROAD COMMISSION OF TEXAS OFFICE OF GENERAL COUNSEL

OIL AND GAS DOCKET NO. 10-0261885

THE APPLICATION OF OVERFLOW ENERGY, LLC FOR COMMERCIAL DISPOSAL AUTHORITY PURSUANT TO STATEWIDE RULE 9 IN THE LC TYSON 447 LEASE, WELL NO. 2H, LIPSCOMB, S.E. (CLEVELAND) FIELD, LIPSCOMB COUNTY, TEXAS

HEARD BY: Richard D. Atkins, P.E. - Technical Examiner

Marshall F. Enquist - Legal Examiner

**APPEARANCES:** 

REPRESENTING:

Applicant:

George C. Neale Rick Johnston Kelly Parma Duwane Skipper

Overflow Energy, LLC

Protestants:

Clark Jobe James Clark Holmes Exploration, LLC and Red Willow

Mid-Continent, LLC

Connie Lilly

Paul and John Landers, Gary and Mary Lou Laubhan, Eugene and Lovella Booth

and Mike Kelln

#### PROCEDURAL HISTORY

Application Filed:
Request for Hearing:
Notice of Hearing:
Date of Hearing:
Transcript Received:
Proposal For Decision Issued:

March 16, 2009 May 12, 2009 May 21, 2009 June 29, 2009 July 2, 2009 July 14, 2009

## **EXAMINERS' REPORT AND PROPOSAL FOR DECISION**

## STATEMENT OF THE CASE

Overflow Energy, LLC ("Overflow") requests authority pursuant to Statewide Rule 9 to operate Well No. 2H on its LC Tyson 447 Lease in Lipscomb County as a commercial disposal well.

This application is protested by offset operators, Holmes Exploration, LLC and Red Willow Mid-Continent, LLC, and the surface owners adjacent to the tract on which the proposed disposal well is located. During the course of the hearing, Overflow agreed to several additional permit special provisions and, as a result, the two offset operators withdrew their protest. However, the adjacent surface owners did not withdraw their protest of the application.

# **DISCUSSION OF THE EVIDENCE**

## **Applicant's Evidence**

The LC Tyson 447 Lease, Well No. 2H, was drilled and completed by Jones Energy, Ltd. in December 2007 as a horizontal Cleveland formation producing well. The well is a vertical well down to 7,400 feet where it was deviated to a horizontal well and drilled to a total measured depth of 12,298 feet. The well has 1,803 feet of 9 \(^5\/\_8\)" surface casing with cement circulated from the casing shoe to the ground surface. The well has 7" production casing set at 8,562 feet with the top of cement calculated to be at 7,480 feet. The Texas Commission on Environmental Quality ("TCEQ") recommends that usable-quality ground water be protected to a depth of 500 feet below the land surface (See attached Overflow Exhibit No. 6A - Wellbore Diagram).

Overflow Energy, LLC assumed operations of the well in February 2009 and proposes to convert the well to a commercial disposal well. The proposed injection will be through 4  $\frac{1}{2}$ " tubing set on a packer no higher than 100 feet above the top of the injection interval. The proposed injection interval is between 3,500 feet and 7,950 feet and contains the Brown Dolomite and Wolfcamp formations. The proposed maximum injection volume is 10,000 BWPD, with an estimated average of 3,000 BWPD. The proposed maximum surface injection pressure is 3,750 psig.

To eliminate the offset operator's protests, Overflow agreed to special conditions for the injection permit that required several cementing operations be performed on the well in order to insure zonal isolation of injected fluids. The cementing operations are summarized as follows:

1. Place a cast iron bridge plug and 20 feet of cement at 8,500 feet to isolate the open hole portion of the well;

- 2. Perform a block squeeze at 5,500 feet with 50 sacks of cement to provide at least 200 feet of cement coverage below the injection interval;
- 3. Perform a block squeeze at 3,500 feet with 100 sacks of cement to provide at least 600 feet of cement coverage above the injection interval.

Overflow also agreed to amend its permit to a proposed injection interval between 3,500 feet and 5,300 feet, reduce the maximum injection volume to 5,000 BWPD and limit the maximum surface injection pressure to 1,750 psig.

There are two horizontal oil wellbores within a ¼ mile radius of the proposed disposal well. There are four offset operators and one horizontal gas wellbore within a ½ mile radius. All three horizontal wellbores produce from the deeper Cleveland formation at approximately 8,100 feet.

Overflow plans to use the well to dispose of produced water and frac water generated as a result of the ongoing development in this area. Overflow believes that additional disposal facilities are necessary to accommodate the active drilling. Overflow currently operates salt water hauling trucks and has partial ownership in B and G Production, Inc. which operates three commercial facilities in Lipscomb County. All of B and G's facilities are operating at or near capacity and wait time is sometimes several hours before trucks can unload. The other commercial salt water disposal facilities in Lipscomb County are for private use only or are operating at capacity.

Overflow submits that it has the expertise to build and manage the proposed facility. Overflow has been involved with the construction of the three B and G commercial disposal well facilities, including drilling, completing and building the surface facility. Overflow has a current approved Form P-5 (Organization Report) and a posted \$25,000 financial assurance bond on file with the Commission. There are no past or pending enforcement dockets at the Commission.

Notice of the subject application was published in the *Booker News*, a newspaper of general circulation in Lipscomb County, on March 5 and June 11, 2009. A copy of the application was mailed on February 9, 2009 to the Lipscomb County Clerk's Office, the surface owners, the adjacent surface owners and the offsetting operators within ½ mile of the proposed well.

# **The Facility**

The proposed facility will be located immediately east of Farm to Market Road ("FM") 1454 one mile north of State Highway ("SH") 213 and approximately eight miles northwest of Higgins, Texas. Truck traffic already exists on FM 1454 and SH 213 with the hauling of frac and produced fluids from oil and gas operations in the area to other salt water disposal facilities.

Overflow submitted a Traffic Analysis Study for the proposed saltwater disposal site. The study showed that 283 vehicles with 23% trucks currently travel FM 1454 on a daily basis and that traffic generated by the proposed disposal facility will have little impact to traffic operations on the area roadways. The existing site access point location meets the driveway spacing requirements of TxDOT and does not require a right turn deceleration lane. In addition, there is over 2,000 feet of available sight distance to the right and left of the driveway and this exceeds TxDOT's requirement of 1,185 feet of sight distance for vehicles traveling at 70 mph on a major roadway like FM 1454.

Overflow stated that a disposal facility at this location will eliminate approximately 25 miles of round trip hauling distance on at least twenty trips for its trucks that operate in this area of the county. In addition, the amended permit volume of 5,000 BWPD will have less impact on traffic operations on the area roadways than was quoted in the Traffic Analysis Study.

## Protestants' Evidence

The protestants are surface owners adjacent to the proposed disposal site and their representative read a statement into the record. They are primarily concerned that the facility will pose a threat to their usable quality underground water that they depend on for household and agri-business purposes. They are also concerned that a spill could contaminate the surface water, as the facility is in close proximity to the free flowing Canyon Creek and its wetlands. In addition, they believe that the truck traffic into the facility will result in noise, dust and fumes that will disrupt the wildlife and livestock in the area.

#### **EXAMINERS' OPINION**

The examiners believe that this application should be approved. The LC Tyson 447 Lease, Well No. 2H, will be completed in a manner which will confine disposal fluids to the proposed disposal interval in the Brown Dolomite and Wolfcamp formations. The surface casing is set through the base of usable quality water and cemented to surface. The longstring production casing will be squeeze cemented in a manner to prevent the migration of fluids from the injection interval. There are only two horizontal oil wells that are producing from the deeper Cleveland formation within the one-quarter mile radius of review. Both of these wells are cased and cemented to protect usable quality ground water.

Approval of the requested permit is in the public interest, given the number of wells being drilled in the area. With the large fracture treatments necessary to stimulate wells in the Cleveland formation and the accompanying produced frac water, sufficient commercial disposal facilities like the proposed well are needed. All of the disposal facilities in Lipscomb County are operating at or near capacity and wait time for trucks to unload is often several hours. Accordingly, a disposal facility at this location will eliminate approximately 25 miles of round trip hauling distance for Overflow's trucks that operate in this area of the county.

The Commission does not have jurisdiction over issues regarding noise, dust and fumes. These concerns raised by the protestants must be addressed in another forum. The requirements in the recommended commercial disposal permit address concerns as to security and the surface handling of fluids. The evidence establishes that the operation of the subject disposal well and facility will not adversely impact any surface or subsurface useable quality water.

## **FINDINGS OF FACT**

- 1. Notice of this hearing was given to all persons entitled to notice at least ten (10) days prior to the hearing. Notice of the subject application was published in the *Booker News*, a newspaper of general circulation in Lipscomb County, on March 5 and June 11, 2009.
- 2. Overflow Energy, LLC plans to recomplete the LC Tyson 447 Lease, Well No. 2H, a horizontal Cleveland formation producing well, as a water injection well. The well is a vertical well down to 7,400 feet where it was deviated to a horizontal well and drilled to a total measured depth of 12,298 feet.
- 3. The maximum requested injection volume is 5,000 barrels of water per day and the maximum requested surface injection pressure is 1,750 psi. The requested disposal intervals are the Brown Dolomite and Wolfcamp formations between approximately 3,500 feet and 5,300 feet.
- The LC Tyson 447 Lease, Well No. 2H, will be cased and cemented in a manner to protect usable quality water and injection will be confined to the injection interval.
  - a. The subject well has 1,803 feet of 9 5/8" surface casing with cement circulated from the casing shoe to the ground surface.
  - b. The subject well has 7" production casing set at 8,562 feet with the top of cement calculated to be at 7,480 feet.
  - c. The 7" production casing will be squeeze cemented in a manner to prevent the migration of fluids from the injection interval.
  - d. Injection will be through tubing set on a packer no higher than 100 feet above the top of the injection interval.
  - e. The Texas Commission on Environmental Quality recommends that usable-quality water be protected to 500 feet in the area of the proposed well.

- 5. There are two horizontal oil wellbores that produce from the deeper Cleveland formation at approximately 8,100 feet within a ¼ mile radius of the proposed disposal well.
- 6. Use of the LC Tyson 447 Lease, Well No. 2H, as a commercial disposal well is in the public interest:
  - a. Due to active development of the Cleveland formation in this area, large quantities of frac and produced water must be disposed of and Well No. 2H will provide a safe means of disposal of the fluids associated with the production.
  - b. A disposal facility at this location will eliminate approximately 25 miles of round trip hauling distance on at least twenty trips for Overflow's trucks that operate in this area of the county.
- 7. Overflow has a current approved Form P-5 (Organization Report) and a posted \$25,000 financial assurance bond on file with the Commission. There are no past or pending enforcement dockets at the Commission.

#### **CONCLUSIONS OF LAW**

- 1. Proper notice was issued in accordance with the applicable statutory and regulatory requirements.
- 2. All things have occurred to give the Railroad Commission jurisdiction to consider this matter.
- 3. Overflow Energy, LLC has met its burden of proof and satisfied the requirements of §27.051 (b) of the Texas Water Code and the Railroad Commission's Statewide Rule 9.
  - a. The use or installation of the proposed injection well is in the public interest.
  - b. The use or installation of the proposed injection well will not endanger or injure any oil, gas, or other mineral formation.
  - c. With proper safeguards, as provided by terms and conditions in the attached final order which are incorporated herein by reference, both ground and surface fresh water can be adequately protected from pollution.

d. Overflow Energy, LLC has made a satisfactory showing of financial responsibility to the extent required by Section 27.073 of the Texas Water Code.

## **EXAMINERS' RECOMMENDATION**

Based on the above findings of fact and conclusions of law, the examiners recommend that the commercial disposal application be approved as set out in the attached Final Order.

Respectfully submitted,

Richard D. Atkins, P.E.

Technical Examiner

Marshall F. Enquist Legal Examiner

Total Depth: 12298' MD (8173' TVD) Date: June 29, 2009 Overflow Energy, LLC 4.5" Liner: 8412-12085' (Not Cemented) Cement Reatiner @ 5500', Perf & Squeeze 50 sacks Cmt Below and Place 20' Cement on Top CIBP @ 8500' w/ 20' Cmt on Top LC Tyson 447 # 2H **Overflow Energy** (42-295-33232)7" Csg @ 8562' (8167' TVD) Cemented w/ 100 sxs Est Cmt Top @ 7480' Perf and Squeeze 100 sacks cement @ 3500' Proposed Disposal Interval: 3500-5300' 9-5/8" @ 1803' Cmt @ Surface

O & G Docket No. 10-0261885

Exhibit No.\_